Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) 2-Halofuryl/thienyl-3-carboxamides of the formula (I)

in which

A represents O (oxygen) or S (sulphur),

Hal represents halogen,

R represents hydrogen, C_1 - C_8 -alkyl, C_1 - C_6 -alkylsulphinyl, C_1 - C_6 alkylsulphonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine formyl- C_1 - C_3 -alkyl, $(C_1-C_3-alkyl)$ carbonyl- $C_1-C_3-alkyl$, atoms; formyl, $(C_1-C_3$ alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo- $(C_1-C_3$ alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine $(C_1-C_8-alkyl)$ carbonyl, $(C_1-C_8-alkoxy)$ carbonyl, $(C_1-C_4-alkoxy-C_1-C_4$ atoms; (C₃-C₈-cycloalkyl)carbonyl; (C₁-C₆-haloalkyl)carbonyl, alkyl)carbonyl, $(C_1 - C_6 -$ (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, haloalkoxy)carbonyl, (C3-C8halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or $-C(=O)C(=O)R^1$, $-CONR^2R^3$ or $-CH_2NR^4R^5$,

R¹ represents hydrogen, C₁-C₈-alkyl, C₁-C₈-alkoxy, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

R² and R³ independently of one another each represent hydrogen, C₁-C₈-alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₈-haloalkyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

R² and R³ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle optionally contains one or two further non-adjacent heteroatoms selected from the group consisting of oxygen, sulphur and NR⁶,

R⁴ and R⁵ independently of one another represent hydrogen, C₁-C₈-alkyl, C₃-C₈-cycloalkyl; C₁-C₈-haloalkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

R⁴ and R⁵ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 to 8 ring atoms which is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle optionally contains 1 or 2 further non-adjacent heteroatoms selected from the group consisting of oxygen, sulphur and NR⁶,

- R⁶ represents hydrogen or C₁-C₆-alkyl,
- M represents a phenyl which is monosubstituted by R^7 ,

- R⁷ represents hydrogen, fluorine, chlorine, methyl, isopropyl, methylthio or trifluoromethyl,
 - Z represents Z^1 , Z^2 , Z^3 or Z^4 , in which
- Z^1 represents phenyl which is optionally mono- to pentasubstituted by identical or different substituents W^1 ,

W¹ represents halogen, cyano, nitro, amino, hydroxyl, formyl, carboxy, carbamoyl, thiocarbamoyl;

in each case straight-chain or branched alkyl, hydroxyalkyl, oxoalkyl, alkoxy, alkoxyalkyl, alkylthioalkyl, dialkoxyalkyl, alkylthio, alkylsulphinyl or alkylsulphonyl having in each case 1 to 8 carbon atoms;

in each case straight-chain or branched alkenyl or alkenyloxy having in each case 2 to 6 carbon atoms;

in each case straight-chain or branched haloalkyl, haloalkoxy, haloalkylthio, haloalkylsulphinyl or haloalkylsulphonyl having in each case 1 to 6 carbon atoms and 1 to 13 identical or different halogen atoms;

in each case straight-chain or branched haloalkenyl or haloalkenyloxy having in each case 2 to 6 carbon atoms and 1 to 11 identical or different halogen atoms;

in each case straight-chain or branched alkylamino, dialkylamino, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, arylalkylaminocarbonyl, dialkylaminocarbonyloxy having 1 to 6 carbon atoms in the respective hydrocarbon chains, alkenylcarbonyl or alkynylcarbonyl having 2 to 6 carbon atoms in the respective hydrocarbon chains;

cycloalkyl or cycloalkyloxy having in each case 3 to 6 carbon atoms;

doubly attached alkylene having 3 or 4 carbon atoms, oxyalkylene having 2 or 3 carbon atoms or dioxyalkylene having 1 or 2 carbon atoms, each of which is optionally mono- to tetrasubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, oxo, methyl, trifluoromethyl and ethyl;

or the grouping C(Q1)=N-Q2-in-which

Q¹ represents hydrogen, hydroxyl or alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms and 1 to 9 fluorine, chlorine and/or bromine atoms or cycloalkyl having 1 to 6 carbon atoms and

Q²—represents hydroxyl, amino, methylamino, phenyl, benzyl or represents in each case optionally cyano, hydroxyl, alkoxy, alkylthio, alkylamino, dialkylamino or phenyl-substituted alkyl or alkoxy having 1 to 4 carbon atoms, or represents alkenyloxy or alkynyloxy having in each case 2 to 4 carbon atoms,

and also phenyl, phenoxy, phenyllthio, benzoyl, benzoylethenyl, cinnamoyl, heterocyclyl or phenylalkyl, phenylalkyloxy, phenylalkylthio or heterocyclylalkyl having in each case 1 to 3 carbon atoms in the respective alkyl moieties, each of which radicals is optionally mono to trisubstituted in the cyclic moiety by halogen and/or straight chain or branched alkyl or alkoxy having 1 to 4 carbon atoms,

provided that when said Z¹ is phenyl that is mono-substituted by -CH=N-OCH₃, said phenyl is further substituted by at least one halogen atom,

- Z^2 represents bicycloalkyl or cycloalkyl which is optionally mono- or polysubstituted by identical or different substituents,
- Z^3 represents unsubstituted C_2 - C_{20} -alkyl or represents C_1 - C_{20} -alkyl which is mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino,

dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, $-SiR^8R^9R^{10}$ and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen and C_1 - C_4 -alkyl,

represents C₂-C₂₀-alkenyl or C₂-C₂₀-alkynyl, each of which is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halo-dialkylamino, -SiR⁸R⁹R¹⁰ and C₃-C₆-cycloalkyl, where the cycloalkyl moiety is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen and C₁-C₄-alkyl,

 R^8 and R^9 independently of one another represent hydrogen, C_1 - C_8 -alkyl, C_1 - C_4 - $C_$

 R^{10} represents hydrogen, C_1 - C_8 -alkyl, C_1 - C_8 -alkoxy, C_1 - C_4 -alkoxy- C_1 - C_4 -alkyl, C_1 - C_4 -alkyl, C_2 - C_8 -alkenyl, C_2 - C_8 -alkynyl, C_1 - C_6 -haloalkyl, C_2 - C_6 -haloalkynyl, C_3 - C_6 -cycloalkyl, or represents in each case optionally substituted phenyl or phenylalkyl.

2. (Currently amended) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1 in which

A represents O (oxygen) or S (sulphur),

Hal represents fluorine, chlorine, bromine or iodine,

R represents hydrogen, C_1 - C_6 -alkyl, C_1 - C_4 -alkylsulphinyl, C_1 - C_4 -alkylsulphonyl, C_1 - C_3 -alkoxy- C_1 - C_3 -alkyl, C_3 - C_6 -cycloalkyl; C_1 - C_4 -haloalkyl, C_1 - C_4 -

haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, $(C_1-C_3-alkyl)$ carbonyl- $C_1-C_3-alkyl$, $(C_1-C_3$ alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo- $(C_1-C_3$ alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine[[-]]and/or bromine atoms; (C₁-C₆-alkyl)carbonyl, (C₁-C₄-alkoxy)carbonyl, (C₁-C₃-alkoxy-C₁-C₃alkyl)carbonyl, (C₃-C₆-cycloalkyl)carbonyl; $(C_1-C_4-haloalkyl)$ carbonyl, $(C_1-C_4 (C_3-C_6$ haloalkoxy)carbonyl, (halo- C_1 - C_3 -alkoxy- C_1 - C_3 -alkyl)carbonyl, halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms, or $-C(=O)C(=O)R^1$, $-CONR^2R^3$ or $-CH_2NR^4R^5$,

R¹ represents hydrogen, C₁-C₆-alkyl, C₁-C₄-alkoxy, C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, halo-C₁-C₃-alkoxy-C₁-C₃-alkyl, C₃-C₆-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

 R^2 and R^3 independently of one another each represent hydrogen, C_1 - C_6 -alkyl, C_1 - C_3 -alkoxy- C_1 - C_3 -alkyl, C_3 - C_6 -cycloalkyl; C_1 - C_4 -haloalkyl, halo- C_1 - C_3 -alkoxy- C_1 - C_3 -alkyl, C_3 - C_6 -halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

R² and R³ furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 or 6 ring atoms which is optionally mono- to tetrasubstituted by identical or different substituents selected from the group consisting of halogen and C₁-C₄-alkyl, where the heterocycle optionally contains 1 or 2 further non-adjacent heteroatoms selected from the group consisting of oxygen, sulphur and NR⁶,

R⁴ and R⁵ independently of one another represent hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl; C₁-C₄-haloalkyl, C₃-C₆-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms,

 R^4 and R^5 furthermore together with the nitrogen atom to which they are attached form a saturated heterocycle having 5 or 6 ring atoms which is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of halogen and C_1 - C_4 -alkyl, where the heterocycle optionally contains 1 or 2 further non-adjacent heteroatoms selected from the group consisting of oxygen, sulphur and NR^6 ,

 R^6 represents hydrogen or C_1 - C_4 -alkyl,

M represents

where the bond marked "*" is attached to the amide and the bond marked "#" is attached to the radical Z,

R⁷ represents hydrogen, fluorine, chlorine, methyl, isopropyl, methylthio or trifluoromethyl,

Z represents Z^1 , Z^2 , Z^3 or Z^4 , where

 Z^1 represents phenyl which is optionally mono- to pentasubstituted by identical or different substituents W^1 ,

W¹ represents halogen, cyano, nitro, amino, hydroxyl, formyl, carboxy, carbamoyl, thiocarbamoyl;

in each case straight-chain or branched alkyl, hydroxyalkyl, oxoalkyl, alkoxy, alkoxyalkyl, alkylthioalkyl, dialkoxyalkyl, alkylthio, alkylsulphinyl or alkylsulphonyl having in each case 1 to 8 carbon atoms;

in each case straight-chain or branched alkenyl or alkenyloxy having in each case 2 to 6 carbon atoms;

in each case straight-chain or branched haloalkyl, haloalkoxy, haloalkylthio, haloalkylsulphinyl or haloalkylsulphonyl having in each case 1 to 6 carbon atoms and 1 to 13 identical or different halogen atoms;

in each case straight-chain or branched haloalkenyl or haloalkenyloxy having in each case 2 to 6 carbon atoms and 1 to 11 identical or different halogen atoms;

in each case straight-chain or branched alkylamino, dialkylamino, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, dialkylaminocarbonyl, dialkylaminocarbonyloxy having 1 to 6 carbon atoms in the respective hydrocarbon chains, alkenylcarbonyl or alkynylcarbonyl having 2 to 6 carbon atoms in the respective hydrocarbon chains;

cycloalkyl or cycloalkyloxy having in each case 3 to 6 carbon atoms;

doubly attached alkylene having 3 or 4 carbon atoms, oxyalkylene having 2 or 3 carbon atoms or dioxyalkylene having 1 or 2 carbon atoms, each of which is optionally mono- to tetrasubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, oxo, methyl, trifluoromethyl and ethyl;

or the grouping C(Q1)=N-Q2 in which

Q¹—represents hydrogen, hydroxyl or alkyl having 1 to 4 carbon atoms, haloalkyl having 1 to 4 carbon atoms and 1 to 9 fluorine, chlorine and/or bromine atoms or cycloalkyl having 1 to 6 carbon atoms and

Q² represents hydroxyl, amino, methylamino, phenyl, benzyl or represents in each case optionally cyano, hydroxyl, alkoxy, alkylthio, alkylamino, dialkylamino or phenyl-substituted alkyl or alkoxy having 1 to 4 carbon atoms, or represents alkenyloxy or alkynyloxy having in each case 2 to 4 carbon atoms,

and also phenyl, phenoxy, phenyllthio, benzoyl, benzoylethenyl, cinnamoyl, heterocyclyl or phenylalkyl, phenylalkyloxy, phenylalkylthio or heterocyclylalkyl having in each case 1 to 3 carbon atoms in the respective alkyl moieties, each of which radicals is optionally mono- to trisubstituted in the cyclic moiety by halogen-and/or straight-chain or branched alkyl or alkoxy having 1 to 4 carbon atoms,

- Z^2 represents cycloalkyl or bicycloalkyl having in each case 3 to 10 carbon atoms and being in each case optionally mono- to tetrasubstituted by identical or different substituents selected from the group consisting of halogen and/or C_1 - C_4 -alkyl,
- represents unsubstituted C_2 - C_{20} -alkyl or C_1 - C_{20} -alkyl which is mono- or polysubstituted by identical or different substituents from the group consisting of fluorine, chlorine, bromine, iodine, C_1 - C_6 -alkylthio, C_1 - C_6 -alkylsulphinyl, C_1 - C_6 -alkylsulphonyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkylamino, di(C_1 - C_6 -alkyl)amino, C_1 - C_6 -haloalkylsulphinyl, C_1 - C_6 -haloalkylsulphonyl, C_1 - C_6 -haloalkylsulphonyl, C_1 - C_6 -haloalkylamino, halo-di(C_1 - C_6 -alkyl)amino, -SiR⁸R⁹R¹⁰ and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part is optionally be mono- to tetrasubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, iodine, C_1 - C_4 -alkyl and C_1 - C_4 -haloalkyl,
- z⁴ represents C₂-C₂₀-alkenyl or C₂-C₂₀-alkynyl, each of which is optionally mono- or polysubstituted by identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, iodine, C₁-C₆-alkylthio, C₁-C₆-alkylsulphinyl,

C₁-C₆-alkylsulphonyl, C₁-C₆-alkoxy, C₁-C₆-alkylamino, di(C₁-C₆-alkyl)amino, C₁-C₆-haloalkylsulphonyl, C₁-C₆-haloalkylsulphonyl, C₁-C₆-haloalkoxy, C₁-C₆-haloalkylamino, halo-di(C₁-C₆-alkyl)amino, -SiR⁸R⁹R¹⁰ and C₃-C₆-cycloalkyl, where the cycloalkyl moiety for its part optionally be mno- to tetrasubstituted by identical or different substituents from the group consisiting of fluorine, chlorine, bromine, iodine, C₁-C₄-alkyl and C₁-C₄-haloalkyl,

 R^8 and R^9 independently of one another represent C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_1 - C_3 -alkoxy- C_1 - C_3 -alkyl or C_1 - C_3 -alkylthio- C_1 - C_3 -alkyl,

R¹⁰ represents C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₃-alkoxy-C₁-C₃-alkyl, C₁-C₃-alkyl, C₁-C₃-alkyl, C₁-C₃-alkyl, C₁-C₃-alkyl, phenyl or benzyl.

- 3. (Withdrawn) Process for preparing the 2-halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1, characterized in that
 - a) carboxylic acid derivatives of the formula (II)

$$H \xrightarrow{Hal} X^1$$
 (II)

in which

A and Hal are as defined in Claim 1 and

X¹ represents halogen or hydroxyl are reacted with aniline derivatives of the formula (III)

in which R, M and Z are as defined in Claim 1,

if appropriate in the presence of a catalyst, if appropriate in the presence of a condensing agent, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent, or

b) halocarboxamides of the formula (IV)

$$\begin{array}{c|c} H & O \\ \hline \\ H & R \\ \hline \\ Hal \\ \end{array} \begin{array}{c} M \\ X^2 \\ \end{array} \hspace{1cm} (IV)$$

in which

A, Hal, R and M are as defined in Claim 1,

X² represents bromine, iodine or trifluoromethylsulphonate,
 are reacted with boronic acid derivatives of the formula (V)

$$G^{1}-O-B-O-G^{2}$$
 Z^{1}
 (V)

in which

Z¹ is as defined in Claim 1 and

G¹ and G² each represent hydrogen or together represent tetramethylethylene,

in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent, or

c) boronic acid derivatives of the formula (VI)

in which

A, Hal, R and M are as defined in Claim 1,

G³ and G⁴ each represent hydrogen or together represent tetramethylethylene are reacted with phenyl derivatives of the formula (VII)

$$x^3-z^1$$
 (VII)

in which

Z¹ is as defined in Claim 1 and

X³ represents chlorine, bromine, iodine or trifluoromethylsulphonate,

if appropriate in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent, or

d) halocarboxamides of the formula (IV)

in which

A, Hal, R and M are as defined in Claim 1,

 X^2 represents bromine, iodine or trifluoromethylsulphonate, are reacted with phenyl derivatives of the formula (VII)

$$X^3 - Z^1$$
 (VII)

in which

Z¹ is as defined in Claim 1 and

X³ represents chlorine, bromine, iodine or trifluoromethylsulphonate,

in the presence of a palladium or nickel catalyst and in the presence of 4,4,4',4',5,5,5',5'-octamethyl-2,2'-bis-1,3,2-dioxaborolane, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent, or

e) 2-halofuryl/thienyl-3-carboxamides of the formula (I-a)

in which

A, Hal, R and M are as defined in Claim 1,

 X^4 represents C_2 - C_{20} -alkenyl or C_2 - C_{20} -alkynyl which are in each case optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, -SiR 8 R 9 R 10 and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C_1 - C_4 alkyl,

are hydrogenated, if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst, or

f) hydroxyalkylcarboxamides of the formula (VIII)

$$H \xrightarrow{\text{Hal}} N \xrightarrow{\text{N}} X^5$$
 (VIII)

in which

A, Hal, R and M are as defined in Claim 1,

 X^5 represents C_2 - C_{20} -hydroxyalkyl which is optionally additionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, -SiR 8 R 9 R 10 and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C_1 - C_4 -alkyl,

are dehydrated, if appropriate in the presence of a diluent and if appropriate in the presence of an acid, or

g) halocarboxamides of the formula(IV)

in which

A, Hal, R and M are as defined in Claim 1,

 X^2 represents bromine, iodine or trifluoromethylsulphonate, are reacted with an alkyne of the formula (IX)

$$HC = G^5$$
 (IX)

in which

G⁵ represents C₂-C₁₈-alkyl which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkylsulphonyl, haloalkylamino, haloalkylamino, -SiR⁸R⁹R¹⁰ and C₃-C₆-cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C₁-C₄-alkyl,

or an alkene of the formula (X)

$$G^{6}$$
 G^{8}
 G^{8}
 G^{8}

in which

G⁶, G⁷ and G⁸ independently of one another each represent hydrogen or alkyl which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, -SiR⁸R⁹R¹⁰ and C₃-C₆-cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C₁-C₄-alkyl and the total number of carbon atoms of the open-chain molecular moiety (without substituents) does not exceed the number 20,

if appropriate in the presence of a diluent, if appropriate in the presence of an acid binder and if appropriate in the presence of one or more catalysts, or

h) ketones of the formula (XI)

in which

A, Hal, R and M are as defined in Claim 1,

 G^9 represents hydrogen or C_1 - C_{18} -alkyl which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino,

halodialkylamino, $-SiR^8R^9R^{10}$ and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C_1 - C_4 -alkyl,

are reacted with a phosphorus compound of the general formula (XII)

$$G^{10}$$
—Px (XII)

in which

G¹⁰ represents C₁-C₁₈-alkyl which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkylsulphonyl, haloalkylamino, haloalkylamino, -SiR⁸R⁹R¹⁰ and C₃-C₆-cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C₁-C₄-alkyl,

Px represents a grouping $-P^{+}(C_{6}H_{5})_{3}C\Gamma$, $-P^{+}(C_{6}H_{5})_{3}Br^{-}$, $-P^{+}(C_{6}H_{5})_{3}\Gamma$, $-P(=O)(OCH_{3})_{3}$ or $-P(=O)(OC_{2}H_{5})_{3}$,

if appropriate in the presence of a diluent, or

i) 2-halofuryl/thienyl-3-carboxamides of the formula (I-b)

$$H \xrightarrow{Hal} N \xrightarrow{M} Z$$
 (I-b)

in which

A, Hal, R, M and Z are as defined in Claim 1 are reacted with halides of the formula (XIII)

$$R^a - X^6$$
 (XIII)

in which

R^a represents C₁-C₈-alkyl, C₁-C₆-alkylsulphinyl, C₁-C₆-alkylsulphonyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-cycloalkyl; C₁-C₆-haloalkyl, C₁-C₄-haloalkylthio, C₁-C₄-haloalkylsulphinyl, C₁-C₄-haloalkylsulphonyl, halo-C₁-C₄-alkoxy-C₁-C₄-alkyl, C₃-C₈-halocycloalkyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; formyl, formyl-C₁-C₃-alkyl, (C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, (C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl; halo-(C₁-C₃-alkyl)carbonyl-C₁-C₃-alkyl, halo-(C₁-C₃-alkoxy)carbonyl-C₁-C₃-alkyl having in each case 1 to 13 fluorine, chlorine and/or bromine atoms; (C₁-C₈-alkyl)carbonyl, (C₁-C₈-alkoxy)carbonyl, (C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈-cycloalkyl)carbonyl; (C₁-C₆-haloalkyl)carbonyl, (C₁-C₆-haloalkoxy)carbonyl, (halo-C₁-C₄-alkoxy-C₁-C₄-alkyl)carbonyl, (C₃-C₈-halocycloalkyl)carbonyl having in each case 1 to 9 fluorine, chlorine and/or bromine atoms; or -C(=O)C(=O)R¹, -CONR²R³ or -CH₂NR⁴R⁵.

R¹, R², R³, R⁴ and R⁵ are as defined above,

X⁶ represents chlorine, bromine or iodine,

in the presence of a base and in the presence of a diluent.

- 4. (Previously presented) A composition for controlling unwanted microorganisms, comprising at least one 2-halofuryl/thienyl-3-carboxamide of the formula (I) according to Claim 1, and one or more extenders and/or surfactants.
- 5. (Withdrawn) Use of 2-halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1 for controlling unwanted microorganisms.

- 6. (Withdrawn) Method for controlling unwanted microorganisms, characterized in that 2-halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1 are applied to the microorganisms and/or their habitat.
- 7. (Withdrawn) Process for preparing compositions for controlling unwanted microorganisms, characterized in that 2-halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.
 - 8. (Withdrawn) Halocarboxamides of the formula (IV)

in which

A, Hal, R and M are as defined in Claim 1,

X² represents bromine or iodine.

9. (Withdrawn) Boronic acid derivatives of the formula (VI)

$$H \xrightarrow{\text{Hal } G^3 \text{-O}^{-\text{B}} \text{O-G}^4} (VI)$$

in which

A, Hal, R and M are as defined in Claim 1,

 G^3 and G^4 each represent hydrogen or together represent tetramethylethylene.

10. (Withdrawn) Hydroxyalkylcarboxamides of the formula (VIII)

in which

A, Hal, R and M are as defined in Claim 1,

 X^5 represents C_2 - C_{20} -hydroxyalkyl which is optionally additionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, -SiR 8 R 9 R 10 and/or C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C_1 - C_4 -alkyl.

11. (Withdrawn) Ketones of the formula (XI)

$$H \longrightarrow Hal \qquad O \qquad G^9 \qquad (XI)$$

in which

A, Hal, R and M are as defined in Claim 1,

 G^9 represents hydrogen or represents C_1 - C_{18} -alkyl which is optionally monoor polysubstituted by identical or different substituents from the group consisting of halogen, alkylthio, alkylsulphinyl, alkylsulphonyl, alkoxy, alkylamino, dialkylamino, haloalkylthio, haloalkylsulphinyl, haloalkylsulphonyl, haloalkoxy, haloalkylamino, halodialkylamino, -SiR 8 R 9 R 10 and C_3 - C_6 -cycloalkyl, where the cycloalkyl moiety for its part may optionally be substituted by halogen and/or C_1 - C_4 -alkyl.

- 12. (New) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1, in which
 - R represents hydrogen, and
 - Z represents Z^1 .
- 13. (New) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1, in which
 - R represents hydrogen, and
 - Z represents Z^3 .
- 14. (New) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1, in which
 - R represents hydrogen, and
 - Z represents Z^4 .
- 15. (New) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 1, in which
 - R represents hydrogen,
 - R⁷ represents hydrogen or fluorine, and
 - Z represents Z^3 .
- 16. (New) 2-Halofuryl/thienyl-3-carboxamides of the formula (I) according to Claim 15, in which
 - Z^3 represents unsubstituted C_2 - C_{20} -alkyl.

17. (New) N-[2-(1,3-dimethylbutyl)phenyl]-2-iodothiophene-3-carboxamide: